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Infections impact Texas Coast fishermen

Vibrio vulnificus can be deadly, but it's treatable if detected early

By DOUG PIKE Copyright 2004 Houston Chronicle

A recent outbreak of rare but potentially dangerous bacterial infections has some coastal fishermen scared to go near the water.

Experts say there is reason for concern and opportunity to increase awareness but no cause for panic.

Vibrio vulnificus and its many relatives are naturally occurring bacteria found in warm saltwater throughout much of the world.

The Centers for Disease Control's Division of Bacterial and Mycotic Diseases notes "an average of 50 culture-confirmed cases, 45 hospitalizations, and 16 deaths" annually along the Gulf Coast.

Nationally, the numbers roughly double across the board. These bugs are most often responsible for illnesses and deaths from consumption of contaminated seafood, but fishermen often contract the bacteria through open wounds.

The Texas Department of Health issued a release on July 22 that documented 20 confirmed cases of *Vibrio* infections this year, including three deaths.

"At least two (of the infections) were associated with exposure of cuts or open wounds to coastal saltwater," according to the release.

TDH spokeswoman Emily Palmer amended that report Wednesday, noting that there now are 11 confirmed cases of wound-related *Vibrio* infections in Texas since June. In 2003, there were 14 wound-related *Vibrio* infections statewide among 43 total cases, seven of which were fatal.

The first year in which *Vibrio v.* is believed to have infected a person is 1979. The CDC began its voluntary reporting system around the Gulf Coast in 1988, but the disease is believed to be underreported.

Recent case

Treatable and beatable with early detection, but the time from infection to death in the worst cases sometimes is measured in just days.

Among the latest to make the unfortunate list of infected patients are three fishing guides.

The man most recently stricken, on high personal alert after word of earlier diagnoses hit the coastal community, knew at the first serious hint of *Vibrio* infection to seek medical attention.

Capt. Ken Griffin, a Port O'Connor guide, had worked 10 consecutive days. When he got home Friday evening, his left ankle felt tender, "like a slight sprain."

On Saturday morning, he felt queasy and skipped breakfast. Wading with clients a few hours later, he became light-headed and passed out. A face full of bay brought him quickly back to consciousness, and Griffin knew he was in trouble.

Back in the boat, he summoned other guides to retrieve his customers, then called for a family member to meet him at the dock.

When he removed his wading boots, Griffin noticed a black spot "about the size of a quarter" below the sore ankle.

"In the time it took us to get from the dock to the emergency room (about an hour)," Griffin said, "that dot about doubled in size."

Griffin was met at DeTar Hospital Navarro by Dr. Brian F. Burns, a plastic surgeon who also is treating two other victims of *Vibrio v*. infection at Citizens Medical Center in Victoria.

"While Dr. Burns drew a circle around (the infected area) and explained what he was going to do," Griffin said, "I could see a redness going up my leg."

The infected tissue was removed, Griffin was pumped full of antibiotics, and it appeared Wednesday that he has turned a corner for the better.

Griffin is luckiest thus far of Texas waders stricken this summer by the bacteria. Burns said that early detection and treatment saved Griffin from severe complications and probably spared his life.

Amputations possible

Doctors at CMC were forced this week to amputate both legs of a Houston man who also has suffered organ failure since infection early in July and remained in critical condition on Wednesday. He waited just a couple of days after the initial infection, friends say, before seeing a doctor.

Another man who contracted the infection around the same time and in the same area has lost most of the tissue between the ankle and knee of one leg.

On Wednesday, he was listed as stable but remained in intensive care at CMC. A fourth man, Bay City fishing guide Jesse Arsola, was hospitalized this past week with *Vibrio v*. infection in his right leg. He already has undergone two surgeries to remove damaged tissue.

"On Friday (July 9), I cut my leg on the trailer, but didn't think anything of it," Arsola said from his

hospital room in Bay City. "I fished the next five days. It got worse and worse. By the next Friday, I was bedridden. My fever got to 104 (degrees)."

Vibrio v. also found its way into the arm of Rockport guide Charlie Newton this month. Newton's wife, Beverly, said his temperature was 104.7 degrees when paramedics checked him at the dock, "and he was drinking a cold drink when they took it."

Newton has undergone surgery and skin grafting to repair his arm. He's improving, Beverly said, but he won't able to work again for weeks.

While *Vibrio v.* is not technically the "flesh-eating bacteria" (Group A *streptococcus*), Burns said the saltwater bug is even more worthy of the name.

"I'd much rather treat a strep infection," Burns said. "I'm more confident that I can save someone from strep than from *Vibrio*. I've treated every conceivable infection you can get in Texas, and (*Vibrio v.*) is by far the worst."

Dissecting numbers

Dr. James Oliver, a Ph.D. at the University of North Carolina in Charlotte, has studied the *Vibrio* family for nearly three decades. He was surprised by the number of wound-related cases in Texas over such a short time and small area.

"This is an incredible occurrence," Oliver said. "I hope the (Texas) Department of Health gets a team of epidemiologists down there to test the water," said Burns, who is convinced that circumstances these past two weeks warrant a closer look.

TDH has no plans to dispatch scientists to the coast.

"All the numbers are within what it usually is," Palmer said. "We don't see anything out of the ordinary."

Amateur observers have drawn several conclusions to explain what they see as anything but an ordinary situation.

Some people point to freshwater runoff from June's near-record setting rainfall in the region, and there is some evidence that salinity may affect concentrations of the bacteria. Others blame a variety of pollutants they believe are in coastal waters.

Oliver said that introduction of freshwater or pollutants likely would hurt the bacteria more than help it. *Vibrio* adapts best to an environment of clean saltwater, he said.

Can't break skin

Matt Richardson, an epidemiologist at TDH in Austin, confirmed that *Vibrio v*. is the "absolute worst of the marine bacteria" on a list that includes many other family members as well as a slow-growing but tough-to-kill germ called atypical mycobacteria. He advised all coastal anglers to be cautious but said that *Vibrio* won't attack unbroken, healthy skin.

People in generally good health who are exposed to *Vibrio v*. bacteria through wounds usually experience only mild symptoms that do not persist. Ingestion by healthy people, reports the CDC, may

cause vomiting, diarrhea and abdominal pain.

"Vibrio is opportunistic," Richardson said. "If (the bacteria) can find a way in, they'll go."

The fast-multiplying bacteria takes greatest advantage of the weak and infirmed. The experts cautioned people with chronic liver disease (such as cirrhosis), diabetes or compromised immune systems to be especially careful around saltwater.

Everyday scrapes are not such great concerns as deep punctures, said Richardson.

Burns recognized that almost all fishermen suffer occasional nicks and cuts around the water. Risk increases as the bacteria are provided easier — deeper — points of entry.

Take precautions

Common-sense precautions should be adequate to avoid life-threatening infection. Keep an antibacterial soap and generous supply of fresh water nearby. If the skin is broken, clean and flush the area at the first opportunity.

Should the site worsen or other indications such as redness, fever, lethargy or flu-like symptoms appear, go straight to the emergency room.

"*Vibrio* infections can be successfully treated with antibiotics if treated early," according to the TDH. The CDC's recommendation is for "Doxycycline or a third-generation cephalosporin (e.g., ceftazidime)."

Dealing with *Vibrio* is a matter of risk management, said Burns, "like watching for rattlesnakes on a quail hunt or dealing with lunatics on the highway."

Added Burns: "Fishermen tend to take chances, to do things we normally wouldn't do."

Nature is full of nasty and sometimes deadly threats that come in all sizes.

The best defenses against the worst bacteria are awareness and, importantly, a willingness to get treatment quickly.

According to the TDH release, "there are no warnings or advisories discouraging visits to the Texas coast."

"If you're around any marine environment," said Burns, "you should be extremely concerned. Know what *Vibrio* is, and make sure your doctor knows."

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